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EXAMINER

XU, KEVIN K

ART UNIT

PAPER NUMBER

2628

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/798,206	Applicant(s) MERCER, JEREMY	
	Examiner Kevin K. Xu	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 14-18 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-13 and 19-20 are drawn to a method and computer-readable medium comprising representing an element with shape on visual design surface, determining a value of at least one characteristic of the element, associating said characteristic with an aura and displaying the aura in association with shape on design surface, classified in class 345 subclass 581
- II. Claims 14-18 are drawn to a computer system of changing at least one characteristic of an element displayed on a visual design surface, comprising displaying at least two affinity regions, wherein each affinity region includes elements having same value of a characteristic, receiving a movement command indicative of user interface selection device dragging an element from first affinity region and hovering the element over a second affinity region and in response changing a value of the characteristic of the element from the value associated with first affinity region to value associated with second affinity region, classified in class 345 subclass 672

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in

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scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, invention I has separate utility such as associating at least one characteristic with an aura and displaying the aura in association with shape on the design surface. Invention II has separate utility such as receiving a movement command indicative of user interface selection device dragging an element from first affinity region and hovering the element over a second affinity region and changing a value of the characteristic of element from value associated with first affinity region to value associated with second affinity region. See MPEP § 806.05(d).

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

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During a telephone conversation with Charles Miller on 2/26/07 a provisional election was made without traverse to prosecute the invention of a method and computer-readable medium comprising representing an element with shape on visual design surface, determining a value of at least one characteristic of the element, associating said characteristic with an aura and displaying the aura in association with shape on design surface, claims 1-13 and 19-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 14-18 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

The disclosure is objected to because of the following informalities: p. 5 lines 21-26 seem to refer to the visual design surfaces and design elements of Figure 3 but the disclosure associates said surfaces and elements with Figure 2. Thus, appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8-13, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (20030198386) in view of Bates (6976214)

Regarding claim 1, Luo teaches representing an element with a shape on a visual design surface. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that the Luo teaches a character, which represents an element with a shape. (See. Fig. 5, Fig. 8B for example) Furthermore Luo teaches determining a value of at least one characteristic of the element. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that Luo teaches for each character in the character string extracted, edge detection is utilized to determine whether a candidate box corresponds to a positive candidate (correspond to text regions) where edges are detected. Furthermore Luo teaches associating the at least one characteristic with an aura. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that the aura as taught by the Luo is bounding box bounding the area of the character and wherein each bounding box is associated with edge detection values as well as foreground/background contrast values. (p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) Nonetheless, Luo does not explicitly teach displaying the aura in association with the shape on the design surface. This is what Bates teaches. (Figs. 4-6, Col 4 line 4-Col 5 line 56) It should be noted that Bates teaches displaying text box in bold and highlighting the term in the text box. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of displaying a term (word) inside a text box in bold and/or

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highlighting the term in the text box because the user is provided with the additional functionality editing text and thus, improving composition and form of text.

Regarding claim 19, Luo teaches a design element shape and an aura in proximity to the design element shape to represent a value of a characteristic. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that the aura as taught by the Luo is bounding box bounding the area of the character and wherein each bounding box is associated with edge detection values as well as foreground, background contrast values. (p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) Nonetheless, Luo does not explicitly teach displaying the design shape element (character) and displaying the aura. This is what Bates teaches. (Figs. 4-6, Col 4 line 4-Col 5 line 56) It should be noted that Bates teaches displaying text box in bold and highlighting the term in the text box. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of displaying a term (word) inside a text box in bold and/or highlighting the term in the text box because the user is provided with the additional functionality editing text and thus, improving composition and form of text.

Regarding claim 20, Luo teaches the aura is around the design element shape. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that the aura as taught by the Luo is bounding box bounding the area of the character and wherein each bounding box is associated with edge detection values as well as

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foreground, background contrast values. (p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) Nonetheless, Luo does not explicitly teach displaying the aura. This is what Bates teaches. (Figs. 4-6, Col 4 line 4-Col 5 line 56) It should be noted that Bates teaches displaying text box in bold and highlighting the term in the text box. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of displaying a term (word) inside a text box in bold and/or highlighting the term in the text box because the user is provided with the additional functionality editing text and thus, improving composition and form of text.

Regarding claim 2, Luo teaches the aura comprises a color coded area surrounding the shape. It should be noted that the image extracted is a gray scale image and the grayscale image is used to obtain edge representation of the image. (p. 2 paragraph 27, p. 4 paragraph 36)

Regarding claim 3, Luo teaches the aura comprises a color-coded area adjacent to at least a portion of the shape. (p. 2 paragraph 27, p. 4 paragraph 36, Fig. 2, Figs. 8A-8B)

Consider claim 4, Luo teaches repeating steps in claim 1 for a plurality of elements (i.e. additional characters of the extracted word, each character contained in a bounding box) (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) Furthermore, Luo teaches merging aura associated with at least some elements in close proximity and having the same value characteristic. (Figs. 8A-8B, p.5 paragraphs

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45-48, p. 6 paragraphs 49-50) It should be noted that the common value characteristic as taught by Luo for each element (character) is acceptable value of contrast between foreground and background. (p. 5 paragraph 46) Nonetheless, Luo does not explicitly teach displaying the aura in association with the shape on the design surface. This is what Bates teaches. (Figs. 4-6, Col 4 line 4-Col 5 line 56) It should be noted that Bates teaches displaying text box in bold and highlighting the term in the text box. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of displaying a term (word) inside a text box in bold and/or highlighting the term in the text box because the user is provided with the additional functionality editing text and thus, improving composition and form of text.

Regarding claim 8, Luo teaches the at least one characteristic comprises a use for the element. (p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that the edge (characteristic) allows the character to be used (detected) within a word.

Regarding claim 11, Luo teaches wherein at least one characteristic comprises an identification of an importance level. (p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that text may be recognized as of higher importance level than non-text.

Consider claim 12, Luo teaches determination a value of at least as a second characteristic of the element. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that a second characteristic as taught by Luo is contrast between

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foreground and background. (p.5 paragraphs 45-46) Associating the second characteristic with a second aura is taught in Fig. 8B (Merging auras to create a word). Nonetheless, Luo does not explicitly teach displaying the second aura in association with the shape on the design surface. This is what Bates teaches. (Figs. 4-6, Col 4 line 4-Col 5 line 56) It should be noted that Bates teaches displaying text box in bold and highlighting the term in the text box. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of displaying a term (word) inside a text box in bold and/or highlighting the term in the text box because the user is provided with the additional functionality editing text and thus, improving composition and form of text.

Claim 13 is similar in scope to claim 12 except for the recitation of determining a value of at least a third characteristic of the element. This is taught by Luo. (p.4 paragraphs 39-42) It should be noted that the third characteristic as taught by Luo is direction information. Thus, claim 13 is rejected under similar rationale as claim 12.

Regarding claim 9, Luo does not explicitly teach one characteristic comprises identification of namespace. Examiner takes official notice that extracted words may be names. It would have been obvious to one of ordinary skill in the art at the time the invention was made to extract names into the combination of Luo and Bates because the user is provided with the additional functionality of editing names.

Regarding claim 10, Luo does not explicitly teach one characteristic comprises identification of an application layer. Examiner takes official notice that images with some text may identify an application layer. It would have been obvious to one of

ordinary skill in the art at the time the invention was made to provide highlights to those type of images to better visually identify and label said images.

Claims 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (20030198386) in view of Bates (6976214) in further view of Tappert. (4731857)

Regarding claim 5, Luo teaches repeating steps in claim 1 for a plurality of elements (i.e. additional characters of the extracted word; each character contained in a bounding box) (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) For motivation of displaying the aura in association with shape, see claim 1. Nonetheless neither Luo nor Bates explicitly teaches sorting the elements (characters) so that elements having the same characteristics are generally in the same location. However, it should be noted that Luo does teach elements having the same characteristic (positive candidate bounding boxes) are generally located in the same region (see Fig. 8B, merging of bounding boxes [auras]). However Luo fails to teach sorting of characters. This is what Bates teaches. (Col 3 lines 7-19, Col 3 lines 48-68, Col 5 lines 1-18, Col 6 line 51-Col 8 line 29) It would have been obvious to one of ordinary skill in the art at the time the invention was made to sort characters for word recognition purposes into the system of Luo because initial character segmentation is not final and need not be highly accurate but is subject to lesser constraint of containing all the true segmentation points (Col 3 lines 64-68) and thus, a more efficient word recognition system can be achieved.

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Regarding claim 6, Luo teaches grouping elements in affinity regions, wherein each affinity region represents elements having the same value of the characteristic. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that Luo teaches merging two auras both having positive candidates (edge detected and/or proper allowed contrast levels). For motivation of displaying elements in merged auras (affinity regions), see claim 1.

Regarding claim 7, Examiner takes official notice that it is well known to utilize labels such as an image to indicate the status of an object or its contents. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a label to allow user to identify and change the status of a highlighted text box into the system of Luo because labels provide the functionality of giving users a convenient way of identification as well as describe characteristics of the object that would not be obvious from simple examination.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin K. Xu whose telephone number is 571-272-7747. The examiner can normally be reached on 8:30AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman can be reached on 571-272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KX

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2/26/07



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